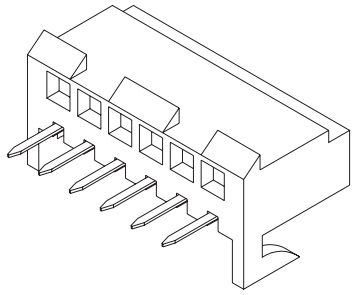
Jameco Part Number 1960687

3.96mm (.156") Pitch KK® PC Board Connector

2145/3215
Bottom Entry



Features and Benefits
- Sizes 2 to 15 circuits
- Mating headers must be long enough to accommodate board thickness
- Polarizing key available
- Available without hooks (contact Molex)
- Various tail lengths available

Reference Information
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 3.96mm (.156") locking headers or 1.14mm (.045") pins
Designed In: Inches

Electrical
Voltage: 250V AC
Current: 5.0A max.*
Contact Resistance: 6 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 50K Megohms min.

Physical
Housing: Nylon, UL 94V-2
(see 41815 for polyester, UL 94V-0)
Contact: Brass or Phosphor Bronze
Plating: See Table
Operating Temperature: 0 to +75˚C

	Order No.
Polarizing Key	15-04-0297

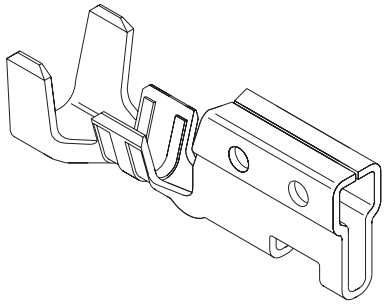
Circuits	Order No.						Center Hook(s) Location
	2145			3215†			
	Tin	Select Gold	Lead-free	Tin	Select Gold	Lead-free	
2	09-62-6024	09-62-3022	Yes			Yes	
3	09-62-6034	09-62-3032		26-11-6035	26-29-1031		
4	09-62-6044	09-62-3042		26-11-6045	26-29-1041		
5	09-62-6054	09-62-3052		26-11-6055	26-29-1051		
6	09-62-6064	09-62-3062		26-11-6065	26-29-1061		
7	09-62-6074	09-62-3072		26-11-6075	26-29-1071		
8	09-62-6084	09-62-3082		26-11-6085	26-29-1081		(1) between circuits 4-5
9	09-62-6094	09-62-3092		26-11-6095	26-29-1091		
10	09-62-6104	09-62-3102		26-11-6105	26-29-1101		(1) between circuits 5-6
11	09-62-6114	09-62-3112			26-29-1111		
12	09-62-6124	09-62-3122		26-11-6125	26-29-1121		(2) between circuits 4-5 and 8-9
13	09-62-6134	09-62-3132			26-29-1131		
14	09-62-6144	09-62-3142			26-29-1141		
15	09-62-6154	09-62-3152		26-11-6155	26-29-1151		(2) between circuits 5-6 and 10-11

* Dependent upon PC board
† Preferred version in Europe and the Far East

www.molex.com/product/kk/kk.html

3.96mm (.156") Pitch Macro-SPOX™ Crimp Terminal

5194/5225
Spring Box



Features and Benefits
- Four-point contact
- Anti-fishhooking contact design

Reference Information
Packaging: Reel or bag
Tooling Information: See end of section
Use With: 5195-N, 5196-N, 5197-N, 5198-N, 5199-N and 43061 housings
Designed In: Millimeters

Electrical
Voltage: 250V
Current:
5194—7.0A max. (Brass) or 5.0A (Phosphor Bronze)
5225—4.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Contact: Brass and Phosphor Bronze
Plating: Tin
Operating Temperature: -40 to +105˚C
Wire Accommodation: 5194—18 to 24 AWG
5225—22 to 28 AWG
Strip Length: 3.0 to 3.5mm

Order No.	Contact Material	Terminal	Insulation Diameter	Lead-free
08-70-1031	Tin-Plated Brass	Reel	1.30-3.20mm	Yes
08-70-1030		Bag		
39-00-0021	Tin-Plated Phosphor Bronze	Reel		
39-00-0022		Bag		
08-70-1029	Tin-Plated Brass	Reel	1.20-2.60mm	
08-70-1028		Bag		

Recommended wire range assumes stranded wire

www.molex.com/product/spox.html

The subject products should meet the following requirements.

1. Electrical Performance

	Item	Test Condition	Requirement
1-1	Rated voltage and current		AC 250V 7A DC 250V 7A
1-2	Contact resistance	Mate connectors measure by Dry Circuit, 20mV max.,10mA.	10 mΩ max.
1-3	Dielectric strength	When applied AC 1500V 1 minute between adjacent terminals or ground	No change
1-4	Insulation resistance	When applied DC 500V between adjacent terminals or ground	1000 MΩ min.

2. Mechanical Performance

	Item	Test Condition		Requirement
2-1	Insertion force	Mating speed : 25±3mm/minute		See para 6
2-2	Extraction force	Disengaging speed : 25±3mm/minute		See para 6
2-3	Duability	When mated up to 30 cycles by the rate of 10 cycles per minute	Contact resistance	20 mΩ max.
			Insertion extraction force	See para 6
2-4	Terminal retention force	Pull speed : 25±3mm/minute		2.0 kg Min.
2-5	Terminal strength	When applied a load of 500gw, 1 minute		No damage

3. Environmental Performance

	Item	Test Condition		Requirement
3-1	Temperature rise	When carried the rated current		30 ℃ max.
3-2	Vibration	1.5mm,10-55-10Hz/min.,each 2 hrs. for X,Y&Z directions, appling 1mA-DC current	Contact resistance	20 mΩ max.
			Discontinuity	1μsec. max.
			Appearance	No damage
3-3	Shock	50G,each 3 times for X,Y,Z directions, appling 1mA-DC current	Discontinuity	1μsec. max.
			Appearance	No damage

REV.B

	Item	Test Condition		Requirement
3-4	Solderability	Soldering time : 3 ± 0.5 sec. Soldering pot : 230 ± 5 ℃		Min. 3/4 of immersed area
3-5	Resistance to soldering heat	Soldering time : 5 ± 0.5 sec. Soldering pot : 260 ± 5 ℃		No damage
3-6	Heat resistance	105 ± 2℃, 96 hours	Contact resistance	20 mΩ max.
			Appearance	No damage
3-7	Humidity	Temperature : 40±2℃ Relative Humidity: 90~95% Duration : 96 hours Measurement must be taken within 30 minutes after tested	Contact resistance	20 mΩ max.
			Dielectric strength	To pass para 1-3
			Insulation resistance	100 MΩ min.
			Appearance	No damage
3-8	Temperature cycling (5 cycles)	One cycle consists of (1) -55±3℃, 30 minutes (2) Room temp. 10~15 minutes (3) 105±2℃, 30 minutes (4) Room temp. 10~15 minutes	Contact resistance	20 mΩ max.
			Appearance	No damage
3-9	Salt Spray	Temperature: 35±2℃ Solution : 5±1% Spray time : 48±4 hours Measurement must be taken after water rinse.	Contact resistance	20 mΩ max.
			Appearance	No significant corrosion
3-10	SO_2 Gas	24 hours in sulfur dioxide gas (SO_2) 50±5ppm at 40±2℃	Contact resistance	20 mΩ max.

4. Ambient Temperature Range : -40℃ ～ 105℃*
   * : Including terminal temperature rise.

5. Construction,Dimension and Material : Specified by the attached drawing.

REV.B

6. Insertion and Extraction Force

No. of Ckt.	Insertion Force (kgf, max.)			Extraction Force (kgf, min.)		
	1st	6th	30th	1st	6th	30th
2	6.5	5.5	5.5	1.0	0.8	0.8
3	8.5	7.5	7.5	1.5	1.2	1.2
4	10.5	9.5	9.5	2.0	1.6	1.6
5	13.0	12.0	12.0	2.5	1.9	1.9
6	15.0	13.5	13.5	2.9	2.3	2.3

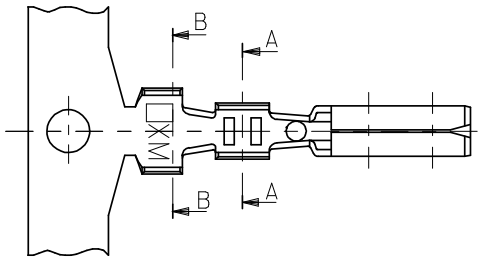
Mated with Molex parts No.

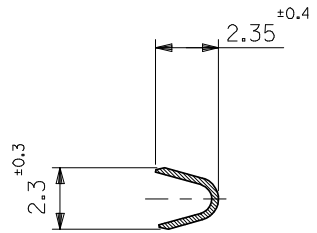
5265-N (5167/5168T,TL,PBT,PBTL)

No. of Ckt.	Insertion Force (kgf, max.)			Extraction Force (kgf, min.)		
	1st	6th	30th	1st	6th	30th
2	4.4	3.6	3.6	0.6	0.5	0.5
3	5.6	4.8	4.8	0.9	0.7	0.7
4	6.8	6.0	6.0	1.2	0.9	0.9
5	8.0	7.2	7.2	1.5	1.1	1.1
6	9.2	8.4	8.4	1.8	1.3	1.3

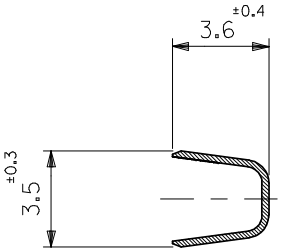
Mated with Molex parts No.

5196-N (5194/5225T,TL)

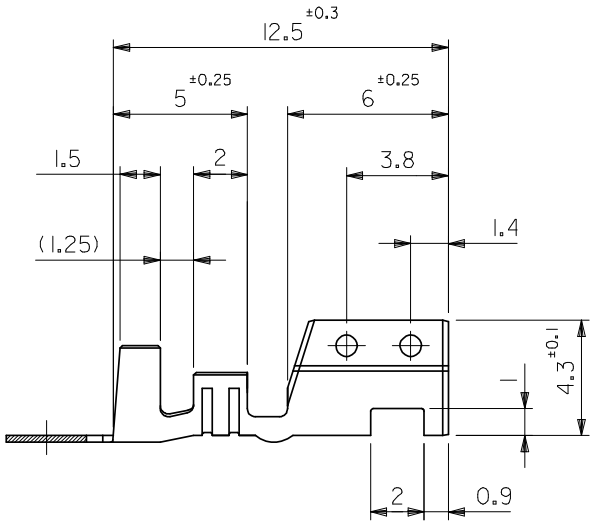


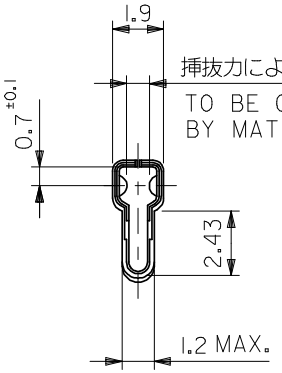


断面 A－A
SECT.A-A



断面 B－B
SECT.B-B





注記
NOTES
1. 適合ハウジング : 5195-N* , 5196-N*
APPLICABLE HOUSING 5197-N* , 5198-N*
5199-N*

錫メッキ済リン青銅 PRE-TINNED PHOSPHOR BRONZE	Sn : 0.9μ MIN.	39-00-0022	5194PBTL	バラ状 LOOSE
		39-00-0021	5194PBT	連鎖状 CHAIN
錫メッキ済黄銅 PRE-TINNED BRASS	Sn : 0.9μ MIN. Cu : 0.5μ MIN.	08-70-1030	5194TL	バラ状 LOOSE
		08-70-1031	5194T	連鎖状 CHAIN
材料 MATERIAL	表面処理 FINISH	EDP NO.	ENG. NO.	端子形状 FORM

材料 MATERIAL	
表参照	SEE TABLE
板厚：	0.254 (t=0.254)
仕上げ FINISH	表参照 SEE TABLE
適用電線範囲 WIRE RANGE	AWG #18-#24
被覆外径 INS. RANGE	ø1.3 - ø3.2

REVISED
EC NO: J2008-3351 2008/03/21
DRWN:MNABEI 2008/03/24
CH'KD:THARUYAMA 2008/03/24
APPR:NUKITA 2008/03/24
DESCRIPTION
J
REV

GENERAL TOLERANCES (UNLESS SPECIFIED)	
10 UNDER	±0.2
10 OVER 30 UNDER	±0.25
30 OVER	±0.3
ANGULAR	±3 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY	SCALE: 5:1	DESIGN UNITS: METRIC	THIRD ANGLE PROJECTION
DRAWN BY: K.HASHIMOTO	DATE: '96/05/21	TITLE: SPOX CRIMP RECEPTACLE	
CHECKED BY: S.KUNISHI	DATE: '98/07/07		
APPROVED BY: M.FUKUSHIMA	DATE: '98/07/07	molex MOLEX INCORPORATED	
MATERIAL NO.: SEE TABLE	DOCUMENT NO.: SD-5194-001	SHEET NO.: 1 OF 1	
SIZE: A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		